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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,544	11/25/2003	Hiroto Sasaki	Q78669	4391

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SUGHRUE, MION, ZINN,
MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue N.W.
Washington, DC 20037-3213

EXAMINER

HUNTER, ALVIN A

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,544

Applicant(s)

SASAKI ET AL.

Examiner

Alvin A. Hunter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7 is/are rejected.
- 7) ☒ Claim(s) 5, 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/25/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

Fine Chemical article cited in the information disclosure statement filed 11/25/2003 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Gendreau et al. (USPN 4955613).

Gendreau et al. discloses the a golf ball product (one-piece) having the following:

- a) a rubber composition of 100 parts by weight (See Table 1),
- b) 25 to 45 phr of metal salt of an unsaturated carboxylic acid (See Column 4, lines 18 through 24),
- c) 5 to 25 phr of metal oxide (See column 4, lines 40 through 42),
- d) about 0.2 to about 2.0 phr of peroxide (See Column 4, lines 18 through 39),

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e) 15 to 85 phr of polybutadiene synthesized with a catalyst of rare earth element having above about 40% cis-1, 4 and a Mooney Viscosity of no greater than 50 (See Column 4, lines 43 through 53).

In regards to claim 4, Gendreau discloses a second polybutadiene in 15 to 85 phr synthesized with a Group VIII element having a Mooney Viscosity of no greater than 50 (See Column 4, lines 43 through 53).

In regards to claim 7, Gendreau et al. incorporates the teachings of U.S. Patent 4692497 wherein two or more peroxides are used having a second peroxide with a half life at least 6 times as long as a first peroxide at a temperature of 320°F, or 160°C.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gendreau et al. (USPN 4955613) in view of Sone et al. (USPN 6642314).

Gendreau et al. disclose neodymium as the preferred lanthanide compound but does not disclose a terminal modifier being used (See Paragraph bridging Columns 2 and 3). Sone et al. discloses a rubber composition wherein a terminal modifier is reacted with the rubber composition after polymerization to increase the workability of the composition (See Column 3, lines 36 through 58). One having ordinary skill in the

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art would have found it obvious to react the rubber having the lanthanide catalyst taught by Gendreau et al., with a terminal modifier, as taught by Sone et al., in order to improve the workability of the composition.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada et al. (USPN 4929678) in view of Yamada et al. (USPN 5585440).

Hamada et al. discloses a rubber composition have the following:

- a) 15 to 60 phr of an unsaturated carboxylic acid,
- b) 22 phr of metal oxide (See Table 2),
- c) 0.5 to 3.0 phr of peroxide (See Column 2, lines 44 through 52),
- d) at least 40% by weight of polybutadiene having a Mooney Viscosity of 45 to 90 and a cis-1,4 of at least 80% (See Summary of the invention).

Hamada et al. does not disclose the rubber being synthesized by a rare earth element catalyst.

Yamada et al. discloses a rubber composition synthesized with a lanthanide catalyst wherein the rubber has improved workability (See Background of the invention). One having ordinary skill in the art would have found it obvious to synthesize polybutadiene with a lanthanide catalyst, as taught by Yamada et al., in order to improve the workability of the rubber.

In regards to claim 2, Hamada et al. discloses the rubber composition having a dispersity (Mw/Mn) of 4.0 to 8.0 (See Column 8 through 25).

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Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada et al. (USPN 4929678) in view of Yamada et al. (USPN 5585440) further in view of Sone et al. (USPN 6642314).

Hamada et al. in view of Yamada et al. discloses the use of neodymium as a rare earth element, however, the use of a terminal modifier is not disclosed (See Column 3, lines 51 through 59 of Yamada et al.). Sone et al. discloses a rubber composition wherein a terminal modifier is reacted with the rubber composition after polymerization to increase the workability of the composition (See Column 3, lines 36 through 58). One having ordinary skill in the art would have found it obvious to react the rubber composition taught by Hamada et al. in view of Yamada et al., with a terminal modifier, as taught by Sone et al., in order to further improve the workability of the composition.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 4, and 7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S.

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Patent No. 6695716 in view of Gendreau et al. (USPN 4955613). Although the conflicting claims are not identical, they are not patentably distinct from each other because US Patent No. 6695716 does not claim the amounts of carboxylic acid, peroxide, and metal oxide used. Gendreau et al. discloses the use of carboxylic acid, peroxide, and metal oxide in the amounts of 25 to 45 phr, about 0.2 to about 2.0 phr, and 5 to 25 phr to obtain improved initial velocity. One having ordinary skill in the art would have found it obvious to use carboxylic acid, peroxide, and metal oxide in the above amounts in order to improve the initial velocity of the golf ball.

In regards to claim 7, Gendreau et al. incorporates the teachings of U.S. Patent 4692497 wherein two or more peroxides are used having a second peroxide with a half life at least 6 times as long as a first peroxide at a temperature of 320°F, or 160°C.

Claim 3 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 6695716 in view of Gendreau et al. (USPN 4955613) further in view of Sone et al. (USPN 6642314). U.S. Patent no. 6695716 in view of Gendreau et al. does not disclose having a terminal modifier. Sone et al. discloses a rubber composition wherein a terminal modifier is reacted with the rubber composition after polymerization to increase the workability of the composition (See Column 3, lines 36 through 58). One having ordinary skill in the art would have found it obvious to react the rubber having the lanthanide catalyst taught by Gendreau et al., with a terminal modifier, as taught by Sone et al., in order to improve the workability of the composition.

Allowable Subject Matter

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Claims 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is 703-306-5693. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Garbe, can be reached on 703-308-1207. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AAN

Alvin A. Hunter, Jr.


Stephen P. Garbe
Primary Examiner